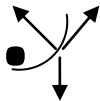


ANSWER SHEET

Question 1	Results	Marks
(a)	 <p style="text-align: center;">(Disregard the symbols)</p>	06(02 for each)
(b)	$\mu_s = \sin \alpha \cdot \frac{1 - \frac{\omega^2 R \cos \alpha}{g}}{\cos \alpha + \frac{\omega^2 R \sin^2 \alpha}{g}}$ <p style="text-align: center;">OR ANY EQUIVALENT</p>	10
(c)	Underline the correct answer: <u>TRUE</u> or FALSE	04
Question 2	Results	Marks
(i) (a)	$C_o = \frac{\epsilon_o H l}{d}$	10
(b)	$W_0 = \frac{1}{2} C_o E_0^2 d^2$	10
(ii) (a)	$C_1 = \frac{\epsilon_o \epsilon_r h l}{d} + \frac{\epsilon_o (H - h) l}{d}$ <p style="text-align: center;">OR ANY EQUIVALENT</p>	10
(b)	$W_1 = \frac{1}{2} \rho g h^2 l d$	10
(c)	$(\epsilon_r - 1) h^2 + H h - \frac{E_o^2 \epsilon_o H (\epsilon_r - 1)}{\rho g} = 0$ <p style="text-align: center;">OR ANY EQUIVALENT</p>	10

1.(2) 2.(1) 3.(4) 4.(5) 5.(4) 6.(5) 7.(3) 8.(1) 9.(4) 10.(3) 11.(3) 12.(1) 13.(5) 14.(4)  
15.(2)